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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/699,756

11/03/2003

Albert Sun

MXIC 1521-1

4258

22470 7590 06/26/2008  
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EXAMINER

PATEL, HETUL B

ART UNIT

PAPER NUMBER

2186

MAIL DATE

DELIVERY MODE

06/26/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/699,756	<b>Applicant(s)</b> SUN ET AL.	
	<b>Examiner</b> HETUL PATEL	<b>Art Unit</b> 2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 18-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This office action is in response to the amendment filed on May 27, 2008.  
Claims 1-17 are cancelled; and claims 18-30 are newly added. Therefore, claims 18-30 are currently pending in this application.
2. Applicant's arguments filed on May 27, 2008 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 18-30 are rejected under 35 U.S.C. 102(a) as being anticipated by Sun et al. (USPN: 6,401,221) hereinafter, Sun.

As per claim 18, Sun teaches a fault-tolerant system (shown in Fig. 1) on an integrated circuit (see claim 37 of Sun), comprising:

- a configurable logic array (i.e. the programmable flash memory; see Col. 4, lines 31-35);
- a boot program (i.e. 102 in Fig. 1) stored in a programmable memory region, which is executed during system initialization (see Col. 4, lines 4-11);
- a mini-boot code (i.e. 107 in Fig. 1) stored in a protected memory region, which is an alternative set of system initialization instructions and executed

- when there is an error during an in-circuit program process (see Col. 4, lines 20-29), wherein the mini-boot code comprises a configuration load program designed to access a configuration data from a default location (i.e. (i) the mini-boot code fetches the instruction which causes the CPU 112 to restart the ICP process by first *reading/accessing a value from the remote host address register 120*; see Col. 5, lines 36-40. NOTE: the claimed “accessing” limitation can also be equated with (ii) “fetching instructions (which considered as *accessing data*) from a default location of the protected memory; see step 218 in Fig. 2 and Col. 6, lines 11+); and
- a processor (i.e. CPU 112 in Fig. 1) coupled to the programmable memory region, the protected memory region and the configurable logic array, for executing instructions from the programmable memory region or the protected memory region (see Col. 4, lines 36-51).

As per claim 19, Sun teaches the claimed invention as described above and furthermore, Sun teaches that the processor boots from the mini-boot code instead of the boot program if the system is rebooted during the in-circuit program process (see Col. 4, lines 43-47).

As per claim 20, Sun teaches the claimed invention as described above and furthermore, Sun teaches that the configurable logic array has a programmable configuration defined by configuration data stored in programmable configuration points within the configurable logic array (i.e. defined by the boot programs 102 and utility programs 104 stored in the programmable flash memory; see Col. 4, lines 31-35).

As per claim 21, Sun teaches the claimed invention as described above and furthermore, Sun teaches that the processor takes a boot vector (i.e. the jump boot vector 116 in Fig. 1) which points to the mini-boot code during system initialization when the in-circuit program process is not completed (see Col. 4, lines 43-47).

As per claim 22, Sun teaches the claimed invention as described above and furthermore, Sun teaches that the processor further couples to a remote host address register (i.e. 120 in Fig. 1), which contains a backup copy of a remote host address (see Col. 4, lines 51-54).

As per claim 23, Sun teaches the claimed invention as described above and furthermore, Sun teaches a multiplexer (i.e. 110 in Fig. 1) coupled to the processor to select the boot program or the mini-boot code during system initialization according to an in-circuit program process status (i.e. based on ICP status 118 in Fig. 1) (see Col. 4, lines 41-43).

As per claim 24, Sun teaches the claimed invention as described above and furthermore, Sun teaches that the mini-boot code causes the processor to restart a configuration load process by reading the remote host address register to determine which remote host to contact in order to reinitiate the configuration load process (see Col. 5, lines 36-40).

As per claim 25, Sun teaches the claimed invention as described above and furthermore, Sun teaches that the default location is one of an on-chip non-volatile memory (i.e. (i) the remote host address register 120 in Fig. 1 OR (ii) the protected memory where 107 is stored; see step 218 in Fig. 2 and Col. 6, lines 11+) and a host

(i.e. 136, 138 and 140 shown in Fig. 1) expected to be coupled with the integrated circuit (i.e. the integrated circuit, which is the combination of 112, 100, 118 and 116 according to claim 37 of Sun, is coupled with remote hosts 136, 138 and 140 via internet 134 as shown in Fig. 1).

As per claims 26-30, refer arguments with respect to the rejection of claims 18-19, 21, 24 and 25, respectively. Claims 26-30 are also rejected based on the same rationale as the rejection of claims 18-19, 21, 24 and 25, respectively.

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HETUL PATEL whose telephone number is (571)272-4184. The examiner can normally be reached on 8:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on 571-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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